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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,141	11/22/2000	Neelamadhaba Mahapatro	44431/233237 (JA13237-153)	7049

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EXAMINER

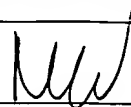
IRSHADULLAH, M

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/721,141	Applicant(s) MAHAPATRO, NEELAMADHABA	
	Examiner M. Irshadullah	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 21, 2004 has been entered.

2. This communication is in response to amendments filed September 21, 2004.

Summary Of Instant Office Action

3. Applicant's arguments regarding claims 40-49 rejected under 35 USC 103, Office Action mailed November 24, 2003 have been considered and are responded below.

4. Pursuant to Applicant's request claims 40-49 have been cancelled and new claims 50-71 have been entered.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 50-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rassman et al (US Patent 4,937,743) in view of Hughes et al (US Patent 5,893,074).

Note: Rassman et al provide exemplary description of the invention in a hospital environment, yet teaches its implementation in industrial settings, col. 4, lines 5-6: "Fig. 6 shows a display of a prospective schedule of industrial projects in accordance with the invention".

Rassman et al teach:

Claim 50. A computer-implemented method for generating a schedule for a project, the method comprising:

a) providing tasks of the project, a task specifying one or more resources that are to be used to complete the task, at least one task specifying multiple resources, a resource having a duration (Fig. 6 {Project X comprising Phase One, Phase Two and Project Y comprising Phase One, Phase Two, Phase Three, and Resources 123, 223 and 224} described col. 14, lines 9-16, wherein depicted projects x and y representing some kind of operations, phases representing tasks {such as preparations prior to operations including supplying requisite medications, setting up equipments and the like} relating to the projects x and y, and tasks or phases under the resource 123 indicating "naming or specifying at least one {one or more} resource} requisite for achieving or completing the phase or tasks, the phase Yone requiring resources 123 and 223 indicating "at least one task naming or specifying more than one or multiple resources", and phase Yone using resource 123, such as surgeon, between 7:00-7:20,

indicating Yone's or task's "duration" as depicted in Fig. 9: Surgeon, Procedure and Duration 00:20);

c) scheduling the tasks by, for the assignments of a task, determining a time when the resource of the assignment is available for the duration of the resource (Col. 6, lines 39-53, wherein cited "operator collecting, storing the information of a surgeon and scheduling resources" indicating reference's teaching a "scheduling" function, and a user employing the function would schedule above discussed tasks or phase as indicated by: "tasks or procedures waiting scheduling, col. 5, lines 4-5". Moreover, reference's teaching "determining availability of surgeon for other operations or emergency, col. 5, lines 24-27" indicating reference's teaching "determining his availability for a certain time period or duration" and a user would employ the functionality for determining a resource's availability for the period or duration requisite for assignments discussed in b below);

d) scheduling the assignment to be performed at the determined time such that the assignments of a task are scheduled separately (Col. 6, lines 39-53, wherein as discussed above, a user would use reference's scheduling function for scheduling assignments {discussed in b) below} at the above discussed resource availability time and as discussed in b) below each assignment is accomplished or completed by a single resource it has to be scheduled independently or separately); and In the following element:

b) automatically dividing tasks into assignments, an assignment being a portion of a task that can be completed using a single resource.

Rassman et al teach:

tasks (as discussed above) and automated functionality (Col. 10, lines 44-60 and col. 15, lines 9-12 etc.).

Rassman et al do not explicitly teach:

1) automatically dividing tasks into assignments, an assignment being a portion of a task.

However, Hughes et al teach 1 (Col. 5, lines 9-12, wherein larger tasks 14a-d representing "tasks" of the project and smaller task 14-a-d representing "assignments", and dividing the project into the larger tasks and larger tasks into smaller tasks or assignments is performed by the reference's method: "the method breaks down the project into a series of smaller components encompassing "tasks and assignments", col. 2, lines 10-11 recited with above explained Col. 5, lines 9-12" indicating reference's teaching "automatically breaking down or dividing") and as depicted in Fig. 2A, smaller tasks or assignments are a part or portion of larger tasks). Rassman et al and Hughes et al are analogous, since they deal with management of resources and tasks of a project.

It would have been obvious to one of ordinary skill in the relevant art at the time of Applicant's invention to incorporate Hughes et al's features into Rassman et al's invention, thereby entailing a system which would enable a user to breakdown projects, tasks into smaller components, and thus resulting to efficient project management.

Regarding "assignment can be completed using a single resource",

Official Notice is taken that the feature is a well known practice in project management art since long before Applicant's invention.

It would have been obvious to one of ordinary skill in the relevant art at the time of Applicant's invention to incorporate the known feature into Rassman et al's invention, thereby entailing a system which would enable a user to efficiently accomplish work.

Claim 51. The method of claim 50 wherein the scheduling of the tasks includes:

a) providing priorities for the tasks (it is a well known practice since long before the instant invention, and a user would have been motivated to advantageously use the available procedure, please see enclosed US patent to Fields et al, col. 4, lines 37-38 for evidence); and

b) scheduling the assignments of a high priority task before scheduling the assignments of a low priority task (Rassman et al: as discussed above a user would use reference's scheduling function for claimed purpose).

Claim 52. The method of claim 50 wherein the scheduling of the tasks includes:

a) providing priorities for the tasks (See discussion above);

b) setting a priority of assignments based on the priority of their tasks (it is a well known practice since long before the instant invention, and a user would have been

motivated to advantageously use the available procedure, please see enclosed New tools for old need: page 17, lines 44-46); and

c) adjusting the priority of assignments based on availability of the resources of the assignments (Rassman et al: Col. 3, lines 19-20, wherein cited "automated schedule adjustment" indicating reference's teach an "adjusting" function and a user would use the same for claimed purpose); and

d) scheduling the assignments in adjusted priority order (Rassman et al: As discussed above a user would use reference's scheduling function for claimed purpose).

Claim 53. The method of claim 50 wherein the scheduling of the tasks includes:

a) providing a specification of dependencies between tasks (Rassman et al: Col. 15, lines 5-8, wherein cited "scheduling depending upon personnel in the field at various locations" indicating reference's teaching "specifying or providing a function determining dependency" which function a user would employ for claimed purpose); and

b) scheduling the assignments of independent tasks before the assignments of dependent tasks (Rassman et al: As discussed above a user would use reference's scheduling function for claimed purpose).

Claim 54. The method of claim 50 wherein the scheduling of the tasks includes:

a) providing a specification of dependencies between tasks (See discussion above); and

b) scheduling the assignments of tasks in dependency order of the tasks (Rassman et al: As discussed above a user would use reference's scheduling function for claimed purpose).

Claim 55. The method of claim 50 wherein the scheduling of the tasks includes:

a) providing a time constraint of a task (Rassman et al: Fig. 3, col. 13, lines 26-36, wherein cited "appearance of conflict indicia C4 showing Case def did not begin at anticipated time" indicating reference's teaching "time constraint" specifying or providing function); and

b) scheduling the assignments of tasks so that the time constraint of the task is satisfied (Rassman et al: As discussed above a user would use reference's scheduling function for claimed purpose).

Claim 56. The method of claim 50 wherein the scheduling of the tasks is performed on a resource-by-resource basis (Rassman et al: As discussed above a user would use reference's scheduling function for claimed purpose).

Claim 57. The method of claim 56 including scheduling the assignments of a resource in order of priority of the assignments (Rassman et al: As discussed above a user would use reference's scheduling function for claimed purpose).

Claim 58. The method of claim 50 wherein the scheduling of the assignments of tasks schedules assignments to satisfy start-on constraints before satisfying must-finish-by constraints (Inherent, since assignment would depend whether starting or start-on condition or constraint is prior to or has precedence over ending or must-finish-by condition or constraint).

Claim 59. A computer-readable medium containing instruction for controlling a computer system to generate a schedule for a project having tasks (Rassman et al: Col. 4, lines 52-57, wherein database comprising storage device, such as CD, HD, Diskette and the like, the storage device considered computer readable and containing cited applications comprising requisite codes or instructions for implementing the invention), at least one task using multiple resources, by method comprising:

a) automatically dividing the tasks of the project into assignments, an assignment being a portion of a task that can be completed using a single resource, each assignment having a duration (See discussion of Applicant's claims 50a) and 50B) above); and

b) scheduling assignments of the tasks separately by, determining a time when the resource of an assignment is available for the duration (See discussion of Applicant's claims 50c) above); and

c) setting the time that the assignment is to be performed to the determined time (See discussion of Applicant's claim 50d) above, wherein scheduling a resource for above discussed determined time indicating "scheduling or setting time" for the assignment available at above discussed determined availability time).

Claim 60. The computer-readable medium of claim 59 wherein the assignments of high priority tasks are scheduled before the assignments of low priority tasks (See discussion of Applicant's claim 51b) above).

Claim 61. The computer-readable medium of claim 59 wherein task have priorities and the scheduling of the assignments includes.

a) setting a priority of an assignment based on the priority of its task (See discussion of Applicant's claim 52a) above); and

b) adjusting the priority of the assignment based on availability of the resource of the assignment (See discussion of Applicant's claim 52b) above); and

c) scheduling the assignment based on the priority of the assignment (See discussion of Applicant's claim 52c) above).

Claim 62. The computer-readable medium of claim 59 wherein tasks have

dependencies and wherein the assignments of independent tasks are scheduled before the assignments of dependent tasks (See discussion of Applicant's claim 53 above).

Claim 63. The computer-readable medium of claim 59 wherein tasks have dependencies and wherein the assignments are scheduled in dependency order (See discussion of Applicant's claim 54) above).

Claim 64. The computer-readable medium of claim 59 wherein a task has a time constraint and wherein the assignments are scheduled so that the time constraint of the task is satisfied (See discussion of Applicant's claim 55) above).

Claim 65. The computer-readable medium of claim 59 wherein the scheduling is performed on a resource-by-resource basis (See discussion of Applicant's claim 56) above).

Claim 66. The computer-readable medium of claim 65 including scheduling the assignments of a resource in order of priority of the assignments (See discussion of Applicant's claim 57) above).

Claim 67. The computer-readable medium of claim 59 wherein the scheduling the assignments of tasks schedules assignments to satisfy start-on constraints before satisfying must-finish-by constraints (See discussion of Applicant's claim 58) above).

Claim 68. A computer system generating a schedule for a project having tasks, the system comprising:

a) a component that automatically divides the tasks of the project into assignments, an assignment being a portion of a task that can be completed using a single resource, each assignment having a duration, at least one task having multiple assignments (See discussion of Applicant's claim 59a) above); and

b) a component that determines a time when the resource of an assignment is available for the duration and sets the time that the assignment is to be performed to the determined time (See discussion of Applicant's claim 59b) and 59c) above).

Claim 69. The computer system of claim 68 wherein the assignments of high priority tasks are scheduled to be performed before performing the assignments of low priority tasks (See discussion of Applicant's claim 51b) above).

Claim 70. The computer system of claim 68 wherein tasks have priorities and priorities of assignments are set based on the priority of their tasks and availability of the resources of the assignments (See discussion of Applicant's claim 61a) and 61b) above).

Claim 71. The computer system of claim 68 wherein tasks have dependencies and wherein the assignments of independent tasks are scheduled before the assignments of dependent tasks (See discussion of Applicant's claim 62 above).

Response to Arguments


7. Applicant's arguments with respect to claims 40-49 have been fully considered but are moot in view of the cancellation of the claims and the new ground(s) of rejection.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Irshadullah whose telephone number is 703-308-6683. The examiner can normally be reached Monday-Friday between 10:30 a.m. and 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


M. Irshadullah
December 16, 2004


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